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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,701	11/09/2001	Hans-Ueli Roeck	34152	7952
116 7590 04/20/2009 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER LEE, PING	
			ART UNIT 2614	PAPER NUMBER
			MAIL DATE 04/20/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/044,701

Applicant(s)

ROECK ET AL.

Examiner

Ping Lee

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/14/09 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-6, 13-18, 1/19, 2/19, 3/19, 4/19, 5/19, 6/19, 13/19, 14/19, 15/19, 16/19, 17/19, 18/19 and 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapple (US 4,881,123).

Regarding claim 1, Chapple discloses a method for operating a hearing device (21) in which one of several possible hearing programs (music or voice) is selected at a given time in order to adjust to a momentary acoustic surround situation (when the public address system is or is not in operation at certain moment), in that parameters of a transfer function (defined by the gain) provided between a microphone (29) and a hearer (wearing 21) are changed, whereas the parameters to be changed according to

the hearing program switching (by 35) are adjusted from a momentary value to a desired value in a smooth manner (see abstract) in response to a filter unit (33), the filter unit having a timed response (col. 3, lines 19-44) to a bi-level switching state value (generated by 35), said timed response controlling said changes.

Regarding claim 2, Chapple discloses that the smooth transition from a momentary value of a parameter to a desired value is extended over a given time range (col. 3, lines 19-48).

Regarding claims 3 and 4, although not explicitly shown, the smooth transition from a momentary value of a parameter to a desired value corresponds to a step response of a low-pass filter is inherently provided by the ramp generator (33).

Regarding claims 5 and 6, Chapple shows that the smooth transition from a momentary value of a parameter to a desired value is generated using a ramp generator (33).

Regarding claims 13-18, Chapple shows that a hearing program is selected by a manual intervention over an oversteer unit at the hearing device, or by a remote control having effect on the hearing device, whereby the selected hearing program is taking effect immediately after selection.

Regarding claim 19, Chapple shows at least amplification is used.

Regarding claim 20, Chapple discloses a hearing device (21), whereas at least one smooth transition filter unit (33, 31, 15, 17) having a timed response (col. 3, lines 19-48) to a bi-level switching state (provided by 35) is provided which filter unit (33, 31, 15, 17) generates time-based transitions of parameters (audio signal) which are

affected by hearing program switching (music or voice) in response to the bi-level switching state value (provided by 35), in that values of the parameters (the level of audio signal to be applied to 21) to be changed by a hearing program switching are passed through the filter unit (31, 33, 15, 17) in order to obtain a smooth transition from a momentary to a desired parameter value (for example, the value of the music is changed from the maximum to the minimum during the moment when the voice should be the only sound source).

Regarding claim 21, although not explicitly shown, the filter unit (33) inherently features low-pass characteristics.

Regarding claim 22, Chapple shows that the filter unit comprises a ramp generator (33).

Regarding claim 23, Chapple shows that an oversteer unit (35) is provided which is operationally connected to the output signal of means to form a smooth transition.

Regarding claim 24, Chapple discloses a method for operating a hearing device in which one of several possible hearing programs (music or voice) is selected at a given time in response to a bi-level switching state value (provided by 35) comprising the steps of:

providing a microphone (29); providing transfer functions between the microphone and a hearer, the transfer functions having parameters (the gains) and corresponding with the programs; providing a filter unit (33) having a timed response (col. 3, lines 19-48) to said bi-level switching state value and;

initiating a change in at least one of the parameters in response to said timed response from a momentary value to a desired value in a time-based manner (see abstract and col. 19-48).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 7-12, 7/19, 8/19, 9/19, 10/19, 11/19 and 12/19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapple in view of Straub (US 4,821,329).

Regarding claims 7-12, 7/19, 8/19, 9/19, 10/19, 11/19 and 12/19, Chapple fails to show that the momentary acoustic surround situation is recognized automatically and that a hearing program is selected according to the recognized momentary acoustic surround situation. Chapple teaches a manual switch triggered by stepping on it (switch 35). Straub teaches a switch that would automatically select the audio signals. Similar to Chapple, the audio signal to be generated is either from the microphone or the sound source. Unlike Chapple, Straub uses a circuit (20) to automatically change switch position and thus select one hearing program based on the momentary acoustic surround situation (detected from 22). Thus, it would have been obvious to one of ordinary skill in the art to modify Chapple in view of Straub to replace the manual switch by automatically recognized the momentary acoustic surround situation in order to automatically changing the hearing program when the public addressing system is in use.

***Response to Arguments***

6. Applicant's arguments filed 1/16/09 have been fully considered but they are not persuasive.

Applicant argued that, for claim 1, Chapple does not have an acoustic surround situation to adjust to. That is not true. The claimed "a momentary acoustic surround situation" reads on the momentary acoustic surround situation in Chapple. Under the background of the invention, Chapple explicitly discloses that the invention is for public use, such as for patients in the doctors' or dentists' offices or waiting areas. See col. 1, lines 14-18. The momentary acoustic surround situation in Chapple is the situation when, at a certain moment, there is a need to override the music signal being played in a public area by slowly introducing voice signal, such as when there is an announcement being made. See col. 1, lines 19-22. Furthermore, the microphone (29) picks up not only the voice signal, but also other signal at the momentary surround situation. Applicant seemed to imply that the user of the headphones cannot be treated as public. That is not what is being disclosed in the background of invention in Chapple.

Applicant argued that, for claim 20, Chapple does not include the limitation "values of the parameters to be changed by a hearing program switching are passed through the filter unit". This is not persuasive. Chapple clearly discloses the filter unit (33, 31, 15, 17). The claimed "values of the parameters" read on the levels of the audio signals from 11 and 13. As signals from 11 and 13 passing through the filter unit (15, 17), the values of the parameters are changed, such as when the levels of the music signals are lowered when an announcement is being made.

Applicant argued that, for claim 24, Chapple does not "providing transfer functions between the microphone and a hearer". This is not supportive. It is well known to those in the art that a transfer function defines the relationship between the output and its input. Thus, the claimed transfer function reads on the gain between the microphone and the headphones. Since the voice signal is being gradually increased and mixed with the music signals, there are plurality of gains and thus a plurality of transfer functions.

### ***Conclusion***

7. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Wednesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ping Lee/  
Primary Examiner, Art Unit 2614

pwl